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**NATIONAL ASSESSMENT OF  
EDUCATIONAL PROGRESS (NAEP)**

**DEMONSTRATION  
BOOKLET  
GRADE 4**

**READING AND MATHEMATICS  
2003**

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# Demonstration Booklet

## 2003 — Grade 4

### Reading and Mathematics

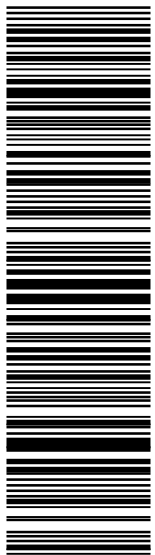


#### School and Teacher Information

SCHOOL #

TEACHER #

 
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NAEP 2003 ASSESSMENT  
NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS  
READING AND MATHEMATICS  
FOURTH GRADE

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# ABOUT THIS DEMONSTRATION BOOKLET

On behalf of the National Assessment of Educational Progress (NAEP) project team, I want to thank you and other members of your school system for agreeing to participate in the NAEP assessment. Your participation is essential and highly valued. The data that NAEP provides about student achievement are widely used by parents, educators, and researchers throughout the nation. Your assistance contributes to our success in measuring what students know and can do.

NAEP is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, national assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts. Since 1990, NAEP assessments have also been conducted on the state level. As provided for by law, beginning in 2003 NAEP will assess fourth- and eighth-grade students in reading and mathematics biennially.

This demonstration booklet illustrates the kinds of exercises, test questions, and tasks used in the 2003 assessment of student achievement in reading and mathematics. Each participating student will be asked to complete the subject matter sections and a background section for one subject test. The length of the assessment will require about 90 minutes of a student's time.

This booklet is divided into four parts. Part one contains the descriptions of each assessment, followed by the booklet directions and subject-specific samples of reading and mathematics questions that are representative of those in the assessment. The second part has the general background questionnaire that fourth graders will be asked to answer and the third part contains the background questionnaires that accompany each subject. NAEP asks students questions about their school experience and what teachers teach in the classroom to help guide decisions regarding education made by policymakers using NAEP data and results. Students' answers to all questions are confidential and students' names are removed from all completed assessment materials.

The sample questions included in this booklet are intended to convey the kinds of questions and question formats that comprise the 2003 assessment. The actual questions in the assessment must be safeguarded to maintain the integrity of the assessment and resulting data. Released questions from previous NAEP assessments are available to be viewed and downloaded from the National Center for Education Statistics (NCES) Web site at <http://nces.ed.gov/nationsreportcard>. However, members of the public may request access to secure NAEP questions. More information on the procedures to follow to make such a request is included in part four of this booklet.

The final part of the booklet, located on the back cover, presents general information about the NAEP program.

If you have any questions or comments regarding the NAEP program or this booklet, please refer to <http://nces.ed.gov/nationsreportcard> or call Sherran Osborne of NCES at (202) 502-7420.

Peggy G. Carr, Associate Commissioner  
Education Assessment  
National Center for Education Statistics

# THE READING ASSESSMENT

The NAEP reading assessment measures students' ability to understand, to interpret, and to think critically about different types of texts. In responding to stories, articles, and documents, students are asked to read *for literary experience*, *to gain information*, and *to perform a task*. The assessment comprises reading materials selected from publications and other resources typically available to students in and out of school.

Across the three purposes for reading, students are asked to demonstrate their understanding by responding to comprehension questions that reflect four different aspects of reading. These aspects characterize the ways readers respond to text while developing understanding. *Forming a General Understanding* questions ask students to consider the text as a whole. *Developing Interpretation* questions ask students to discern connections and relationships within the text. *Making Reader/Text Connections* questions ask students to connect information from the text with prior knowledge and experience. *Examining Content and Structure* questions ask students to critically evaluate the content, organization, and form of the text.

The NAEP reading assessment contains multiple-choice questions as well as short and extended constructed-response questions. Students spend approximately 50 to 60 percent of their assessment time providing written answers to the constructed-response questions.

Each student who participates in the assessment will receive one assessment booklet. At grade 4, the booklets will contain two 25-minute reading sections made up of reading materials and questions as well as a short questionnaire designed to yield information about the student and school practices, such as the amount of time spent on homework or the types of instruction encountered in the classroom.

## NAEP Reading Framework

### Distribution of Percentage of Assessment Time Across Purposes for Reading and Grades

	Grade 4	Grade 8	Grade 12
Literary	55%	40%	35%
Informative	45%	40%	45%
Task	**	20%	20%

\*\*Not assessed at grade 4.

# READING BOOKLET DIRECTIONS

In each of the next two sections, you will have 25 minutes to read a story, an article, or a document and answer questions about it. You should think carefully about your answers, and you should use the entire 25 minutes to complete each section.

You will be asked to respond to three different types of questions. Some of the questions will require you to choose the best answer and fill in the oval for that answer in your booklet.

For other questions, you will be asked to write short answers on the blank lines provided in your booklet. Here is an example of a question that requires you to provide a short answer.

## Example 1

Give an example from the article that shows Mandy was not a quitter.

*One example is that Mandy's mother didn't want her to umpire in public, but Mandy persuaded her mother to let her.*

Also, you may be asked to answer other questions by writing longer, more detailed responses on a full page of blank lines. For example, here is a question that requires you to provide a longer answer.

**Example 2**

Explain how Mandy's mother and brother helped Mandy to become the first woman umpire.

*Mandy's mother helped her by agreeing to let her umpire at a public ball game. Mandy did so well that the team offered her a job as umpire. Mandy's brother helped her by letting her play baseball with him. He also helped Mandy to persuade their mother to let her play in public.*

When you are asked to write your response be sure that your handwriting is clear. Think carefully about each question and make your answers as complete as possible, using as many lines as you need.

You may go back to the story, article, or document when answering any of the questions. If you finish before time is called, be sure to read your work again and change anything that you think will make your answers better.



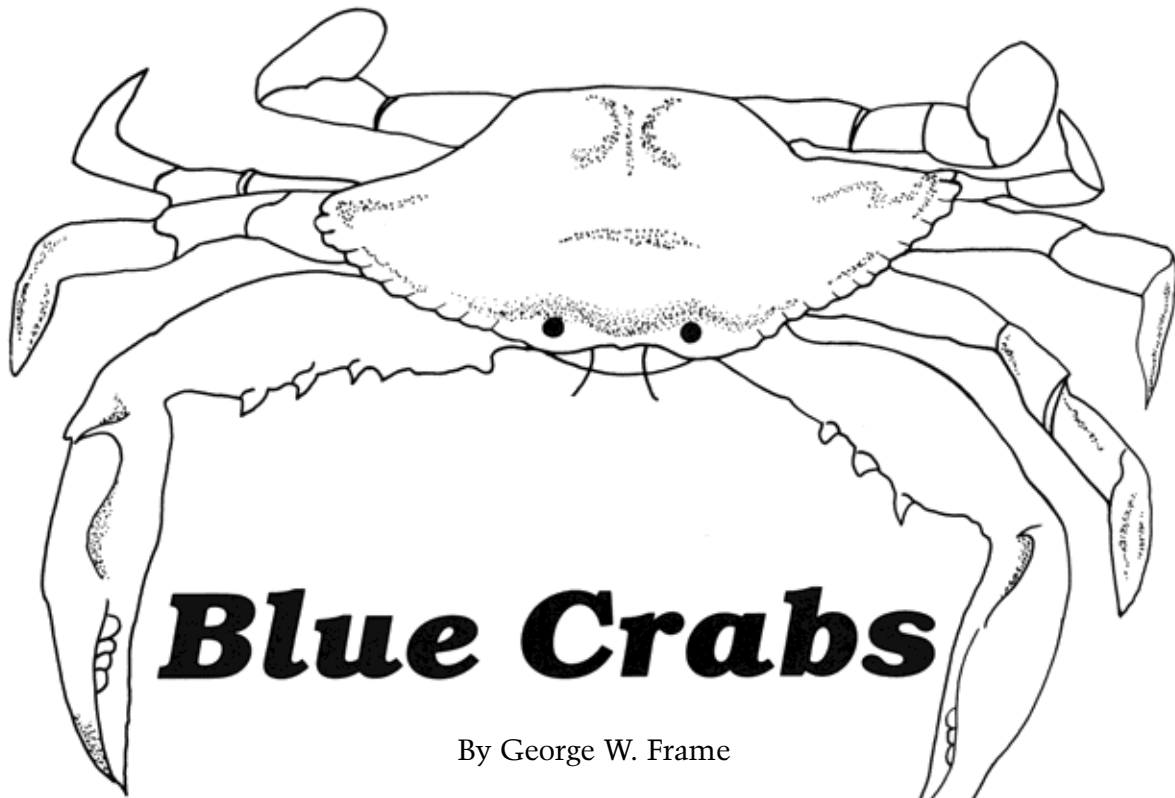
# READING SAMPLE QUESTIONS

(More sample assessment questions are available on NAEP's Web site at  
<http://www.nces.ed.gov/nationsreportcard/itmrls/>)

In this section, you will have 25 minutes to read an article and answer 10 questions about it. Mark your answers in your booklet. Fill in only one oval for each question or write your answer on the lines. Please think carefully about your answers. When you are writing your answers, be sure that your handwriting is clear.

Do not go past the STOP sign at the end of the section. If you finish before time is called, you should go over your work again and change anything that you think will make your answers better.

PLEASE TURN THE PAGE AND BEGIN READING NOW



Nearly every day last summer my nephew Keith and I went crabbing in a creek on the New Jersey coast. We used a wire trap baited with scraps of fish and meat. Each time a crab entered the trap to eat, we pulled the doors closed. We cooked and ate the crabs we caught.

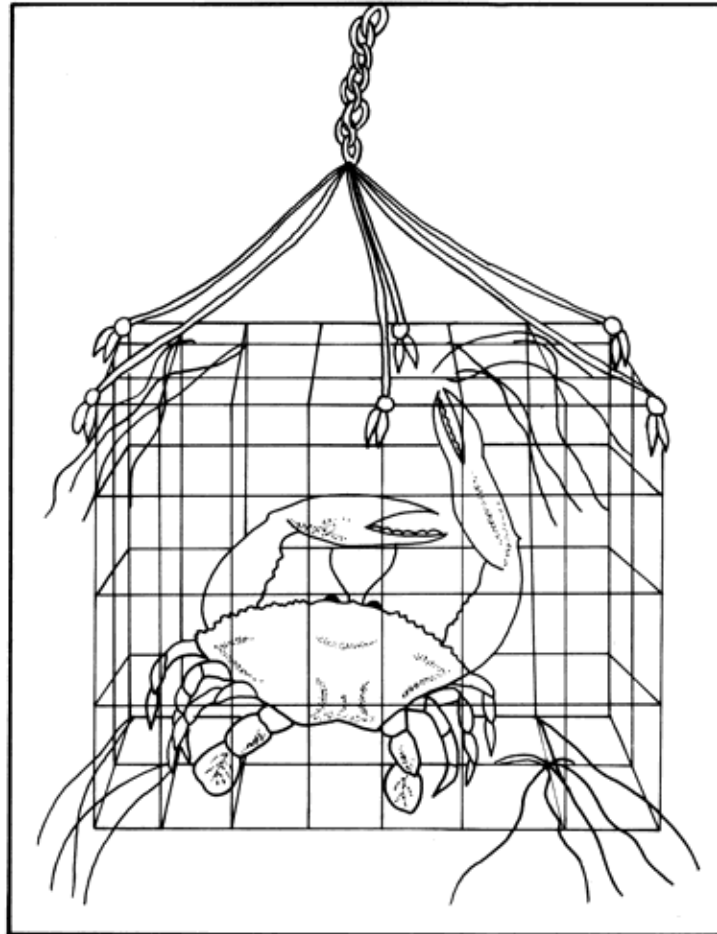
Blue crabs are very strong. Their big claws can make a painful pinch. When cornered, the crabs boldly defend themselves. They wave their outstretched claws and are fast and ready to fight. Keith and I had to be very careful to avoid having our fingers pinched.

Crabs are **arthropods**, a very large group of animals that have an external skeleton and jointed legs. Other kinds of arthropods are insects, spiders, and centipedes. Blue crabs belong to a particular arthropod group called **crustaceans**. Crustaceans are abundant in the ocean, just as insects are on land.

The blue crab's hard shell is a strong armor. But the armor must be cast off from time to time so the crab can grow bigger. Getting rid of its shell is called **molting**.

Each blue crab molts about twenty times during its life. Just before molting, a new soft shell forms under the hard outer shell. Then the outer shell splits apart, and the crab backs out. This leaves the crab with a soft, wrinkled, outer covering. The body increases in size by absorbing water, stretching the soft shell to a much larger size. The crab hides for a few hours until its new shell has hardened.

Keith and I sometimes found these soft-shell crabs clinging to pilings and hiding beneath seaweed.



**B**lue crabs mate when the female undergoes her last molt and still has a soft shell. The male courts her by dancing from side to side while holding his claws out stretched. He then transfers sperm to the female, where they are stored until egg laying begins several months later. The female blue crab mates only once but receives enough sperm to fertilize all the eggs that she will lay in her lifetime. Usually she lays eggs two or three times during the summer, and then she dies.

When the eggs are fertilized and laid, they become glued to long hairs on the underside of the female's abdomen. The egg mass sometimes looks like an orange-brown sponge and contains up to two million eggs

until they hatch—about nine to fourteen days later. Only one of the blue crabs that we caught last summer was carrying eggs, and we returned her to the water so her eggs could hatch. Most females with eggs stay in the deeper, saltier water at the ocean's edge rather than in the marshes.

The young blue crabs, and most other young crustaceans, hatch into larvae that look very different from their parents. The tiny blue crab babies are hardly bigger than a speck of dust. They are transparent and look like they are all head and tail. These larvae swim near the surface of the sea, and grow a new and bigger shell every few days. They soon change in shape so that they can either swim or crawl around on the bottom. Then

they molt again and look like tiny adult crabs. After that their appearance does not change, but they continue to molt every twenty or thirty days as they grow.

**A**s blue crabs become older, some move into shallower waters. The males in particular go into creeks and marshes, sometimes all the way to the freshwater streams and rivers. Keith and I caught ninety-two blue crabs in the shallow creek of the tide marsh last summer. Eighty-seven of those crabs were males, and only five were females.

Gulls find and eat many blue crabs. They easily catch crabs that hide in puddles at low tide. Other predators are raccoons, alligators, and people. If caught, the crabs sometimes drop off a leg or claw to escape. Seven of the blue crabs that Keith and I caught were missing a claw.

Crabs are able to replace their lost limbs. If a leg or claw is seriously injured, the crab drops it off. The opening that is left near the body closes to prevent the loss of blood. Soon a new limb begins growing at the

break. The next time the crab molts, the tiny limb's covering is cast off, too, and the crab then has a new usable leg or claw. The new limb is smaller than the lost one. But by the time the crab molts two or three more times, the new leg or claw will be normal size.

**M**any fishermen catch crabs to sell. Most are caught in wire traps or with baited lines during the summer while the crabs are active. In the winter, the fishermen drag big nets through the mud for the dormant crabs. Commercial fishermen catch a lot of crabs, sometimes more than 50 million pounds in a year. And many other crabs are caught by weekend fishermen who crab for fun and food.

The blue crab has a scientific name, just like all other living things. Its name is *Callinectes sapidus*. In the Latin language *Callinectes* means "beautiful swimmer," and *sapidus* means "delicious." I think that scientists gave the blue crab a very appropriate name.

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1. Do you think it would be fun to catch blue crabs? Using information from the passage, explain why or why not.

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2. According to the passage, what do blue crabs have in common with all other arthropods?

- Ⓐ They have a skeleton on the outside of their bodies.
- Ⓑ They hatch out of a shell-like pod.
- Ⓒ They live in the shallow waters of North America.
- Ⓓ They are delicious to eat.

3. The growth of a blue crab larva into a full-grown blue crab is most like the development of

- Ⓐ a human baby into a teenager
- Ⓑ an egg into a chicken
- Ⓒ a tadpole into a frog
- Ⓓ a seed into a tree



7. By saying that the blue crab's shell is a strong armor, the author suggests that the shell
- Ⓐ contains metal similar to that worn by King Arthur's knights
  - Ⓑ protects the blue crab from attacks by other animals
  - Ⓒ has strong muscles like those of professional wrestlers
  - Ⓓ consists of a number of heavy plates

8. Why does a blue crab hide after molting?

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9. The author of the article helps you to learn about blue crabs by
- Ⓐ explaining why they are an endangered species
  - Ⓑ comparing them to other arthropods
  - Ⓒ discussing their place in the food chain
  - Ⓓ providing details about their unique characteristics

10. What is the most interesting thing you learned from the passage about blue crabs?

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# THE MATHEMATICS ASSESSMENT

The NAEP mathematics assessment measures students' ability to solve problems in five mathematics content strands: Number Sense, Properties, and Operations; Measurement; Geometry and Spatial Sense; Data Analysis, Statistics and Probability; and Algebra and Functions. Students are asked questions within each of these five content strands which involve conceptual understanding, procedural knowledge and/or problem solving (mathematical abilities) within a broader context of reasoning, making connections, and communication (mathematical power).

The exercise types include multiple-choice questions, short-answer open-ended questions, and extended open-ended tasks. The extended exercises allow students to communicate their ideas and demonstrate the reasoning they used to solve problems. The short answer and extended response type questions make up more than 50 percent of student assessment time. The assessment also incorporates the use of calculators (four-function at grade 4 and scientific at grades 8 and 12), rulers (at all grades), protractors (at grades 8 and 12), and manipulatives such as spinners and geometric shapes into some parts of the assessment, but not all. Calculator use is permitted on approximately one-third of the test questions. NAEP provides all ancillary materials for students.

Each student who participates in the assessment will receive one test booklet. The assessment booklets will contain two 25-minute sets of test questions, as well as a short questionnaire designed to yield information about the student and school practices, such as the amount of time spent on homework or the types of instruction encountered in the classroom.

**NAEP Mathematics Framework  
Distribution of Percentage of Assessment Questions  
Across Content Strands and Grades**

	<b>Grade 4</b>	<b>Grade 8</b>	<b>Grade 12</b>
Number Sense, Properties and Operations	40%	25%	20%
Measurement	20%	15%	15%
Geometry and Spatial Sense	15%	20%	20%
Data Analysis, Statistics, and Probability	10%	15%	20%
Algebra and Functions	15%	25%	25%

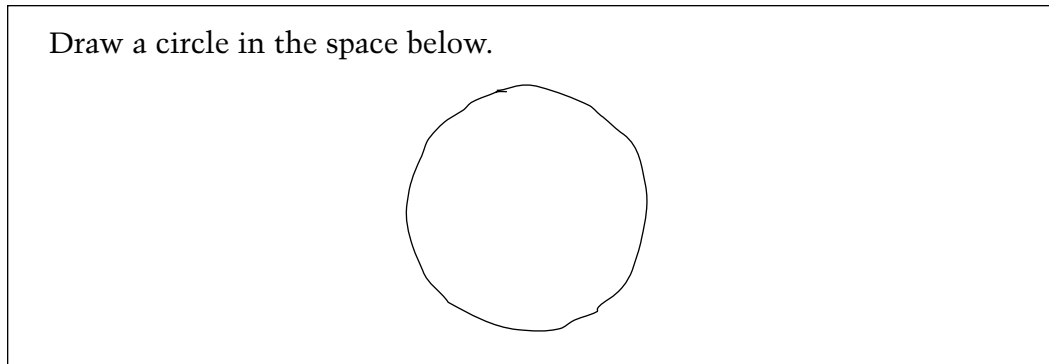
# MATHEMATICS BOOKLET

## DIRECTIONS

This assessment uses many different booklets. Each booklet has different questions. Do not worry if the person next to you is working on questions that do not look like those you are working on.

Read each question carefully and answer it as well as you can. Do not spend too much time on any one question.

For some of the questions you may need to write or draw the answer. You can see how this is done in the example below.



You may be given a calculator to use for at least one part of your booklet. If you are given a calculator, you will have to decide when to use it in each section where its use is permitted. For some questions using the calculator is helpful, but for other questions the calculator may not be helpful. After each question you will be asked to indicate whether you used the calculator.

When you receive the calculator, make sure you know how to use it. There are instructions on the back cover of this booklet to help you. If the calculator does not work or if you do not know how to use it, raise your hand and ask for help.

### REMEMBER:

Read each question CAREFULLY.

Fill in only ONE OVAL for each question or write your answer in the space provided.

If you change your answer, ERASE your first answer COMPLETELY.

CHECK OVER your work if you finish a section early.

Do not go past the



sign at the end of each section until you are told to do so.

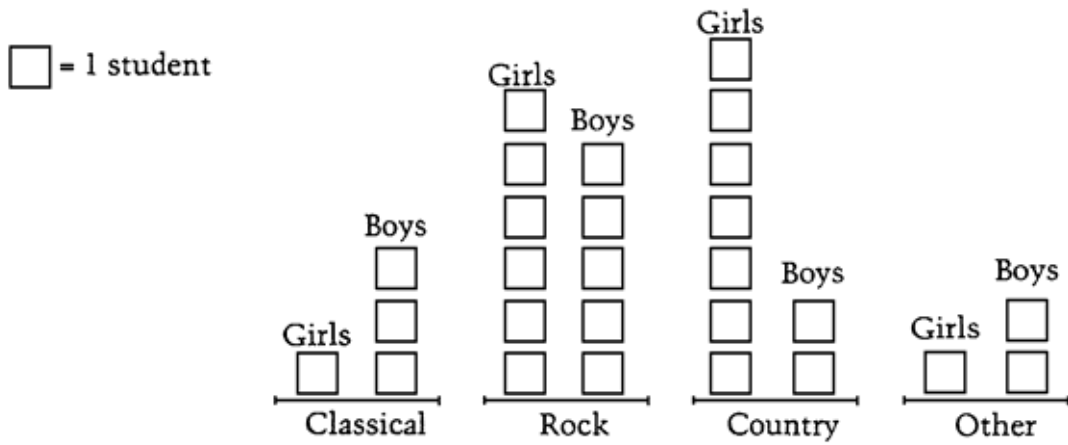


# MATHEMATICS SAMPLE QUESTIONS

(More sample assessment questions are available on NAEP's Web site at  
<http://www.nces.ed.gov/nationsreportcard/itmrls/>)

1. Sam can purchase his lunch at school. Each day he wants to have juice that costs 50¢, a sandwich that costs 90¢, and fruit that costs 35¢. His mother has only \$1.00 bills. What is the least number of \$1.00 bills that his mother should give him so he will have enough money to buy lunch for 5 days?

2. Each boy and girl in the class voted for his or her favorite kind of music.  
Here are the results.



Which kind of music did most students in the class prefer?

- Ⓐ Classical
- Ⓑ Rock
- Ⓒ Country
- Ⓓ Other

3. Brett needs to cut a piece of string into four equal pieces without using a ruler or other measuring instrument.

Write directions to tell Brett how to do this.

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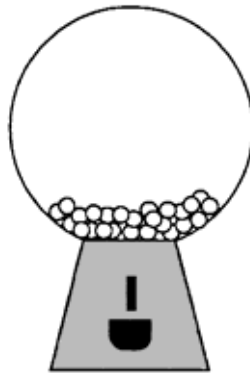
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4. The picture shows the flowerpots in which Kevin will plant flower seeds. He needs three seeds for each pot. Which of the following number sentences shows how many seeds Kevin will need for all of the pots?

- (A)  $5 \times 4 \times 3 = \square$
- (B)  $(5 \times 4) + 3 = \square$
- (C)  $(5 + 4) \times 3 = \square$
- (D)  $5 + 4 + 3 = \square$

Think carefully about the following question. Write a complete answer. You may use drawings, words, and numbers to explain your answer. Be sure to show all of your work.



20 yellow  
30 blue  
50 red

5. The gum ball machine has 100 gum balls; 20 are yellow, 30 are blue, and 50 are red. The gum balls are well mixed inside the machine.

Jenny gets 10 gum balls from this machine.

What is your best prediction of the number that will be red?

Answer: \_\_\_\_\_ gum balls

Explain why you chose this number.

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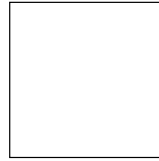
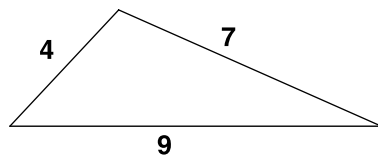
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6. If both the square and the triangle above have the same perimeter, what is the length of each side of the square?



# GENERAL BACKGROUND QUESTIONNAIRE

In this section, please tell us about yourself and your family. The section has 15 questions. Mark your answers in your booklet.

1. Are you Hispanic or Latino? Fill in **one or more ovals**.
  - ☐ (A) No, I am not Hispanic or Latino.
  - ☐ (B) Yes, I am Mexican, Mexican American, or Chicano.
  - ☐ (C) Yes, I am Puerto Rican or Puerto Rican American.
  - ☐ (D) Yes, I am Cuban or Cuban American.
  - ☐ (E) Yes, I am from some other Hispanic or Latino background.
2. Which of the following best describes you? Fill in **one or more ovals**.
  - ☐ (A) White
  - ☐ (B) Black or African American
  - ☐ (C) Asian
  - ☐ (D) American Indian or Alaska Native
  - ☐ (E) Native Hawaiian or other Pacific Islander
3. Does your family get a newspaper at least four times a week?
  - ☐ (A) Yes
  - ☐ (B) No
  - ☐ (C) I don't know
4. Does your family get any magazines regularly?
  - ☐ (A) Yes
  - ☐ (B) No
  - ☐ (C) I don't know
5. About how many books are there in your home?
  - ☐ (A) Few (0-10)
  - ☐ (B) Enough to fill one shelf (11-25)
  - ☐ (C) Enough to fill one bookcase (26-100)
  - ☐ (D) Enough to fill several bookcases (more than 100)
6. Is there a computer at home that you use?
  - ☐ (A) Yes
  - ☐ (B) No

7. Is there an encyclopedia in your home? It could be a set of books, or it could be on the computer.
- Ⓐ Yes
  - Ⓑ No
  - Ⓒ I don't know
8. Is there a world atlas in your home? It could be a book of maps of the world, or it could be on the computer.
- Ⓐ Yes
  - Ⓑ No
  - Ⓒ I don't know
9. About how many pages a day do you have to read in school and for home-work?
- Ⓐ 5 or fewer
  - Ⓑ 6-10
  - Ⓒ 11-15
  - Ⓓ 16-20
  - Ⓔ More than 20
10. How often do you talk about things you have studied in school with someone in your family?
- Ⓐ Never or hardly ever
  - Ⓑ Once every few weeks
  - Ⓒ About once a week
  - Ⓓ Two or three times a week
  - Ⓔ Every day
11. On a school day, about how many hours do you usually watch TV or videotapes outside of school?
- Ⓐ None
  - Ⓑ 1 hour or less
  - Ⓒ 2 or 3 hours
  - Ⓓ 4 or 5 hours
  - Ⓔ 6 hours or more

12. How many days were you absent from school in the last month?
- Ⓐ None
  - Ⓑ 1 or 2 days
  - Ⓒ 3 or 4 days
  - Ⓓ 5 to 10 days
  - Ⓔ More than 10 days
13. How far in school did your mother go?
- Ⓐ She did not finish high school.
  - Ⓑ She graduated from high school.
  - Ⓒ She had some education after high school.
  - Ⓓ She graduated from college.
  - Ⓔ I don't know.
14. How far in school did your father go?
- Ⓐ He did not finish high school.
  - Ⓑ He graduated from high school.
  - Ⓒ He had some education after high school.
  - Ⓓ He graduated from college.
  - Ⓔ I don't know.
15. How often do people in your home talk to each other in a language other than English?
- Ⓐ Never
  - Ⓑ Once in a while
  - Ⓒ About half of the time
  - Ⓓ All or most of the time



# READING BACKGROUND QUESTIONNAIRE

This section is about reading and writing. The section has 24 questions. Mark your answers in your booklet. Fill in only **one** oval for each question.

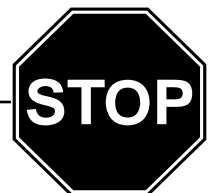
**Questions 1–5.** The following questions are about reading and writing. For each question, please mark the answer that best describes you.

- |  |   |
|--|---|
| 1. When I read books, I learn a lot.<br><input type="radio"/> (A) This is not like me.<br><input type="radio"/> (B) This is a little like me.<br><input type="radio"/> (C) This is a lot like me.  | 4. Writing helps me share my ideas.<br><input type="radio"/> (A) This is not like me.<br><input type="radio"/> (B) This is a little like me.<br><input type="radio"/> (C) This is a lot like me.  |
| 2. Reading is one of my favorite activities.<br><input type="radio"/> (A) This is not like me.<br><input type="radio"/> (B) This is a little like me.<br><input type="radio"/> (C) This is a lot like me.                                | 5. How often do you read for fun on your own time?<br><input type="radio"/> (A) Never or hardly ever<br><input type="radio"/> (B) Once or twice a month<br><input type="radio"/> (C) Once or twice a week<br><input type="radio"/> (D) Almost every day |
| 3. Writing things like stories or letters is one of my favorite activities.<br><input type="radio"/> (A) This is not like me.<br><input type="radio"/> (B) This is a little like me.<br><input type="radio"/> (C) This is a lot like me. |   |

6. How often do you talk with your friends or family about something you have read?
  - (A) Never or hardly ever
  - (B) Once or twice a month
  - (C) Once or twice a week
  - (D) Almost every day
7. How often do you write in a private diary or journal outside of school?
  - (A) Never or hardly ever
  - (B) Once or twice a month
  - (C) Once or twice a week
  - (D) Almost every day
8. How often do you write stories or poems for fun outside of school?
  - (A) Never or hardly ever
  - (B) Once or twice a month
  - (C) Once or twice a week
  - (D) Almost every day
9. How often do you write e-mails to your friends or family?
  - (A) Never or hardly ever
  - (B) Once or twice a month
  - (C) Once or twice a week
  - (D) Almost every day
10. How often do you read stories or poems for fun outside of school?
  - (A) Never or hardly ever
  - (B) A few times a year
  - (C) Once or twice a month
  - (D) At least once a week
11. How often do you read to learn about real things (such as facts about dinosaurs or other countries) for fun outside of school?
  - (A) Never or hardly ever
  - (B) A few times a year
  - (C) Once or twice a month
  - (D) At least once a week
12. How often do you read stories or articles that you find on the Internet for fun outside of school?
  - (A) Never or hardly ever
  - (B) A few times a year
  - (C) Once or twice a month
  - (D) At least once a week
13. For school this year, how often do you have a class discussion about something that the class had read?
  - (A) Never or hardly ever
  - (B) A few times a year
  - (C) Once or twice a month
  - (D) At least once a week

14. For school this year, how often do you work in pairs or small groups to talk about something that you have read?
- Ⓐ Never or hardly ever
  - Ⓑ A few times a year
  - Ⓒ Once or twice a month
  - Ⓓ At least once a week
15. For school this year, how often do you write in a journal about something that you have read for class?
- Ⓐ Never or hardly ever
  - Ⓑ A few times a year
  - Ⓒ Once or twice a month
  - Ⓓ At least once a week
16. So far this year, how many times have you written a book report?
- Ⓐ Never
  - Ⓑ Once
  - Ⓒ 2 or 3 times
  - Ⓓ 4 or 5 times
  - Ⓔ 6 or more times
17. So far this year, how many times have you made a presentation to the class about something that you have read?
- Ⓐ Never
  - Ⓑ Once
  - Ⓒ 2 or 3 times
  - Ⓓ 4 or 5 times
  - Ⓔ 6 or more times
18. So far this year, how many times have you done a school project about something that you have read (for example, written a play, created a poster)?
- Ⓐ Never
  - Ⓑ Once
  - Ⓒ 2 or 3 times
  - Ⓓ 4 or 5 times
  - Ⓔ 6 or more times

19. How often do you read paperbacks, soft-cover books, or magazines for **reading**?
  - (A) Never or hardly ever
  - (B) A few times a year
  - (C) Once or twice a month
  - (D) At least once a week
20. How often do you read paperbacks, soft-cover books, or magazines for **science**?
  - (A) Never or hardly ever
  - (B) A few times a year
  - (C) Once or twice a month
  - (D) At least once a week
21. How often do you read paperbacks, soft-cover books, or magazines for **social studies or history**?
  - (A) Never or hardly ever
  - (B) A few times a year
  - (C) Once or twice a month
  - (D) At least once a week
22. How often do you read paperbacks, soft-cover books, puzzle books or magazines for **math**?
  - (A) Never or hardly ever
  - (B) A few times a year
  - (C) Once or twice a month
  - (D) At least once a week
23. For school this year, how often have you been asked to write long answers to questions on tests or assignments that involved reading?
  - (A) Never
  - (B) Once or twice this year
  - (C) Once or twice a month
  - (D) At least once a week
24. When you have reading assignments in school, how often does your teacher give you time to read books you have chosen yourself?
  - (A) Never or hardly ever
  - (B) Once or twice a month
  - (C) Once or twice a week
  - (D) Almost every day



# MATHEMATICS BACKGROUND QUESTIONNAIRE

This section has six questions. Mark your answers in your booklet. Fill in only **one** oval for each question.

- 1a. For this school year, how often do you do mathematics problems from text-books?
- ☐ (A) Never or hardly ever
- ☐ (B) Once or twice a month
- ☐ (C) Once or twice a week
- ☐ (D) Almost every day
- 1b. For this school year, how often do you solve mathematics problems with a partner or in small groups?
- ☐ (A) Never or hardly ever
- ☐ (B) Once or twice a month
- ☐ (C) Once or twice a week
- ☐ (D) Almost every day
- 1c. For this school year, how often do you work with objects like rulers, counting blocks, or geometric shapes?
- ☐ (A) Never or hardly ever
- ☐ (B) Once or twice a month
- ☐ (C) Once or twice a week
- ☐ (D) Almost every day
- 1d. For this school year, how often do you write a few sentences about how you solved a mathematics problem?
- ☐ (A) Never or hardly ever
- ☐ (B) Once or twice a month
- ☐ (C) Once or twice a week
- ☐ (D) Almost every day
- 1e. For this school year, how often does your teacher have you talk with other students during class about how you solved mathematics problems?
- ☐ (A) Never or hardly ever
- ☐ (B) Once or twice a month
- ☐ (C) Once or twice a week
- ☐ (D) Almost every day
- 1f. For this school year, how often do you use a computer?
- ☐ (A) Never or hardly ever
- ☐ (B) Once or twice a month
- ☐ (C) Once or twice a week
- ☐ (D) Almost every day

2. Do you have a calculator that you can use to do mathematics schoolwork?
- Ⓐ Yes
  - Ⓑ No
- 3a. For this school year, how often do you use a calculator for classwork?
- Ⓐ Never or hardly ever
  - Ⓑ Once or twice a month
  - Ⓒ Once or twice a week
  - Ⓓ Almost every day
- 3b. For this school year, how often do you use a calculator for homework?
- Ⓐ Never or hardly ever
  - Ⓑ Once or twice a month
  - Ⓒ Once or twice a week
  - Ⓓ Almost every day
- 3c. For this school year, how often does your teacher let you use a calculator for tests or quizzes?
- Ⓐ Never or hardly ever
  - Ⓑ Sometimes
  - Ⓒ Most of the time
  - Ⓓ Always
4. About how much time do you usually spend each **day** on mathematics homework?
- Ⓐ None
  - Ⓑ 15 minutes
  - Ⓒ 30 minutes
  - Ⓓ 45 minutes
  - Ⓔ One hour
  - Ⓕ More than one hour
5. Do you get extra help in mathematics from a special teacher, teacher aide, or tutor?
- Ⓐ Yes
  - Ⓑ No

Questions 6a–6c. The following statements are about mathematics. For each statement, please mark the answer that best describes you.

6a. I like mathematics.

- ☐ (A) This is not like me.
- ☐ (B) This is a little like me.
- ☐ (C) This is a lot like me.

6b. I am good at mathematics.

- ☐ (A) This is not like me.
- ☐ (B) This is a little like me.
- ☐ (C) This is a lot like me.

6c. I understand most of what goes on in mathematics class.

- ☐ (A) This is not like me.
- ☐ (B) This is a little like me.
- ☐ (C) This is a lot like me.

Questions 6d–6g. These statements ask about mathematics. For each statement, please mark the answer that tells how much you agree with it.

6d. There is only one correct way to solve a mathematics problem.

- ☐ (A) I disagree.
- ☐ (B) I am not sure if I disagree or agree.
- ☐ (C) I agree.

6e. Learning mathematics is mostly memorizing facts.

- ☐ (A) I disagree.
- ☐ (B) I am not sure if I disagree or agree.
- ☐ (C) I agree.

6f. Mathematics is useful for solving everyday problems.

- ☐ (A) I disagree.
- ☐ (B) I am not sure if I disagree or agree.
- ☐ (C) I agree.

6g. All students can do well in mathematics if they try.

- ☐ (A) I disagree.
- ☐ (B) I am not sure if I disagree or agree.
- ☐ (C) I agree.



**National Assessment of Educational Progress**  
**2003 Assessment**  
**Reading and Mathematics**

**Information About National Assessment of  
Educational Progress**

**PROJECT MISSION.** NAEP is authorized by Congress and directed and funded by the U.S. Department of Education (National Center for Education Statistics) to report on what American students know and can do in key academic subjects. It has produced more than 600 reports in its 33-year history, chronicling trends over time in the performance of 9-, 13-, and 17-year-old and fourth-, eighth-, and twelfth-grade students. The results are reported in the aggregate for large groups; no student or school data are reported. Information is reported by average proficiency; achievement levels; racial/ethnic and gender status; region; type of school; parents' education level; teachers' emphases; and a variety of school supports for learning. It is important to note that student participation is voluntary and confidential.

**THE CONTENT OF NAEP.** By law, for each subject assessed, the National Assessment Governing Board (NAGB) manages the development of frameworks detailing what students reasonably might be expected to know and do. These frameworks are the "blueprints" for developing tasks that measure the content specified. Schools selected for the 2003 assessment will receive NAEP's frameworks for reading and mathematics. For information on additional framework development, please contact Mary Crovo of the National Assessment Governing Board at 202-357-6941.

**OBTAINING NAEP SAMPLE QUESTIONS.** Most NAEP questions and tasks are not generally released to the public because these materials are reused in future assessments, and must be kept secure if the project is to accurately report trends in academic performance. However, about 25 percent of the questions from each assessment are typically designated for public release, and each NAEP report contains a sample of actual test questions. The questions released for public use can be obtained from the National Center for Education Statistics, NAEP Released Exercises, 1990 K Street, NW, Washington, DC 20006. Also, previously released questions may be viewed on and downloaded from the NCES Web site at <http://nces.ed.gov/nationsreportcard>.

**REVIEW OF SECURE NAEP QUESTIONS.** Upon written request, adult members of the public may review NAEP questions and instruments, consistent with requirements for test security. These arrangements must be made in advance of the local administration date(s) so that sufficient materials can be available and interested persons can be notified about the location and time of the examination. Those persons reviewing the assessment may not, however, remove the booklets from the room, copy them, or take notes. These requests may be made by contacting the National Center for Education Statistics at 202-502-7420.

**FOR FURTHER INFORMATION.** For prompt field staff support on the above-mentioned matters, or any other concerns, please call 800-283-6237.